


anode assembly or the cathode assembly, wherein:

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- (a) the anode assembly comprises:
- (1) an anode comprising an elongated strip of alkali metal and an anode current collector having at least a first connector tab disposed to extend away from a side edge thereof, the elongated strip of alkali metal having a first length and the anode current collector having a second length; and
 - (2) a first layer of separator material shaped to form a pocket around the anode to encase the anode therein and through which the first connector tab extends; and
- (b) the cathode assembly comprises:
- (1) a cathode comprising an elongated cathode current collector having a second connector tab disposed to extend away from a side edge thereof, the cathode current collector having a third length, and a cathode material bonded to the cathode current collector; and
 - (2) a second layer of separator material shaped to form a pocket around the cathode to encase the cathode therein and through which the first connector tab extends,

whereby two layers of separator material separate the anode and cathode when wound into the coil of the electrode assembly.

10. An electrode assembly for an electrochemical cell of the type comprising an elongated anode assembly and an elongated cathode assembly wound unidirectionally in side-by-side relation into a coil comprising a plurality of alternating anode and cathode assembly layers built up from an innermost layer through inner layers to an outermost layer such that the outermost layer of the coil comprises an end segment of the anode assembly, wherein:

(a) the anode assembly comprises:

- (1) an anode comprising an elongated strip of alkali metal and an anode current collector having at least a first connector tab disposed to extend away from a side edge thereof, the elongated strip of alkali metal having a first length, the anode current collector having a second length, the anode current collector being disposed against an end segment of the elongated strip of alkali metal corresponding to an end segment of the anode assembly that when wound into the coil disposes at least a portion of the anode current collector in the outermost layer of the coil; and
- (2) a first layer of separator material shaped to form a pocket around the anode to encase the anode therein and through which the first connector tab extends; and

(b) the cathode assembly comprises:

- (1) a cathode comprising an elongated cathode current collector having a second connector tab disposed to extend away from a side edge thereof, the cathode current collector having a third

length, the third length shorter than the first length by an amount that enables the end segment of the anode assembly to be wound into the outermost layer of the coil, and a cathode material bonded to the cathode current collector; and

- (2) a second layer of separator material shaped to form a pocket around the cathode to encase the cathode therein and through which the first connector tab extends,

whereby two layers of separator material separate the anode and cathode when wound into the coil of the electrode assembly.

28. An electrode assembly for an electrochemical cell of the type comprising an elongated anode assembly and an elongated cathode assembly wound unidirectionally in side-by-side relation into a coil comprising a plurality of alternating anode and cathode assembly layers built up from an innermost layer through inner layers to an outermost layer such that the outermost layer of the coil comprises an end segment of the anode assembly, wherein:

- (a) the anode assembly comprises an anode comprising an elongated strip of alkali metal and an anode current collector having at least a first connector tab disposed to extend away from a side edge thereof, the elongated strip of alkali metal having a first length, the anode current collector having a second length, the second length being shorter than the first length, the anode current collector being disposed against an end segment of the elongated strip of alkali metal corresponding to an end segment of the

elongated strip of alkali metal corresponding to an end segment of the anode assembly that when wound into the coil disposes the anode current collector in the outermost layer of the coil;

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- (b) the cathode assembly comprises a cathode comprising an elongated cathode current collector having a second connector tab disposed to extend away from a side edge thereof, the cathode current collector having a third length, the third length shorter than the first length by an amount that enables the end segment of the anode assembly to be wound into the outermost layer of the coil, and a cathode material bonded to the cathode current collector; and
- (c) a separator layer interposed between the anode and cathode assemblies.
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37. An electrode assembly for an electrochemical cell of the type comprising an elongated anode assembly and an elongated cathode assembly wound unidirectionally in side-by-side relation into a coil comprising a plurality of alternating anode and cathode assembly layers built up from an innermost layer through inner layers to an outermost layer such that the outermost layer of the coil comprises an end segment of the anode assembly, wherein:

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- (a) the anode assembly comprises an anode comprising an elongated strip of alkali metal and an anode current collector having at least a first connector tab disposed to extend away from a side edge thereof, the elongated strip of alkali metal having a first length, the anode current collector having a second length, the second length of the anode current collector being

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shorter than the first length of the elongated strip of alkali metal, the anode current collector being disposed within the elongated strip of alkali metal except in an end segment of the elongated strip of alkali metal corresponding to an end segment of the anode assembly that when wound into the coil disposes the anode current collector in the outermost layer of the coil and exposed alongside the elongated strip of alkali metal;

- (b) the cathode assembly comprises a cathode comprising an elongated cathode current collector having a second connector tab disposed to extend away from a side edge thereof, the cathode current collector having a third length, the third length shorter than the first length by an amount that enables the end segment of the anode assembly to be wound into the outermost layer of the coil and a cathode material bonded to the cathode current collector; and
- (c) at least one separator layer interposed between the anode and cathode assemblies

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46. (Four Times Amended) An electrode assembly for an electrochemical cell[,] of the type comprising an elongated anode assembly and an elongated cathode assembly wound unidirectionally in side-by-side relation into a coil comprising a plurality of alternating anode and cathode assembly layers built up from an innermost layer through inner layers to an outermost layer such that the outermost layer of the coil comprises an end segment of the anode assembly, wherein:

- (a) the anode assembly comprises

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- (1) an anode comprising an elongated strip of alkali metal and an anode current collector having at least a first connector tab disposed to extend away from a side edge thereof, the elongated strip of alkali metal having a first length, the anode current collector having a second length, the second length of the anode current collector being shorter than the first length of the elongated strip of alkali metal, the anode current collector being disposed within the elongated strip of alkali metal except in an end segment of the elongated strip of alkali metal corresponding to an end segment of the anode assembly that when wound into the coil disposes the anode current collector in the outermost layer of the coil and exposed alongside the elongated strip of alkali metal; and
- (2) a first layer of separator material shaped to form a pocket around the anode to encase the anode therein and through which the first connector tab extends; and
- (b) the cathode assembly comprises:
- (1) a cathode comprising an elongated cathode current collector having a second connector tab disposed to extend away from a side edge thereof, the cathode current collector having a third length, the third length shorter than the first length by an amount that enables the end segment of the anode assembly to be wound into the outermost layer of the coil and a cathode material bonded to the cathode current collector; and

- (2) a second layer of separator material shaped to form a pocket around the cathode to encase the cathode therein and through which the second connector tab extends;

whereby two layers of separator material separate the anode and cathode when wound into the coil of the electrode assembly.

55. An electrode assembly for an electrochemical cell of the type comprising an elongated anode assembly and an elongated cathode assembly wound unidirectionally in side-by-side relation into a coil comprising a plurality of alternating anode and cathode assembly layers built up from an innermost layer through inner layers to an outermost layer such that the outermost layer of the coil comprises an end segment of the anode assembly, wherein:

- (a) the anode assembly comprises an anode comprising an elongated strip of alkali metal and an anode current collector having at least a first connector tab disposed to extend away from a side edge thereof, the elongated strip of alkali metal having a first length, the anode current collector having a second length the second length of the anode current collector being shorter than the first length of the elongated strip of alkali metal, the anode current collector being disposed against an end segment of the elongated strip of alkali metal corresponding to an end segment of the anode assembly that when wound into the coil disposes the anode current collector in the outermost layer of the coil and into or through at least one inner anode assembly layer of the coil not constituting the innermost layer;

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- (b) the cathode assembly comprises a cathode comprising an elongated cathode current collector having a second connector tab disposed to extend away from a side edge thereof, the cathode current collector having a third length, the third length shorter than the first length by an amount that enables the end segment of the anode assembly to be wound into the outermost layer of the coil, and a cathode material bonded to the cathode current collector; and
- (c) a separator layer interposed between the anode and cathode assemblies.--

Please add the following new Claims 91 – 100:

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--91. The electrode assembly of claim 1, wherein:

the anode current collector is disposed against an end segment of the elongated strip of alkali metal corresponding to an end segment of the anode assembly that when wound into the coil disposes at least a portion of the anode current collector in the outermost layer of the coil;

the second length of the anode current collector being shorter than the first length of the elongated strip of alkali metal, the anode current collector being disposed against an end segment of the elongated strip of alkali metal corresponding to an end segment of the anode assembly that when wound into the coil disposes the anode current collector in the outermost layer of the coil; and

the third length is shorter than the first length by an amount that enables the end segment of the anode assembly to be wound into the outermost layer of the coil.

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The electrode assembly of claim 91, wherein:

the anode current collector extends through the end segment of the elongated strip of alkali metal corresponding to an end segment of the anode assembly that when wound into the coil disposes at least a portion of the anode current collector in the outermost layer of the coil and through at least one inner anode assembly layer of the coil not constituting the innermost layer.

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The electrode assembly of claim 91, wherein:

the first layer of separator material forming a pocket around the anode is formed by folding a separator material sheet over a top edge of the anode, conforming the separator material sheet to the anode, and joining the separator material sheet to itself with a seal at a bottom edge of the anode; and

the second layer of separator material forming a pocket around the cathode is formed by folding a separator material sheet over a top edge of the cathode, conforming the separator material sheet to the cathode, and joining the separator material sheet to itself with a seal at a bottom edge of the cathode.

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The electrode assembly of claim 1, wherein:

the first layer of separator material forming a pocket around the anode is formed by folding a separator material sheet over a top edge of the anode, conforming the separator material sheet to the anode, and joining the separator material sheet to itself with a seal at a bottom edge of the anode; and

the second layer of separator material forming a pocket around the cathode is

formed by folding a separator material sheet over a top edge of the cathode, conforming the separator material sheet to the cathode, and joining the separator material sheet to itself with a seal at a bottom edge of the cathode.

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The electrode assembly of claim 10, wherein:

the first layer of separator material forming a pocket around the anode is formed by folding a separator material sheet over a top edge of the anode, conforming the separator material sheet to the anode, and joining the separator material sheet to itself with a seal at a bottom edge of the anode; and

the second layer of separator material forming a pocket around the cathode is formed by folding a separator material sheet over a top edge of the cathode, conforming the separator material sheet to the cathode, and joining the separator material sheet to itself with a seal at a bottom edge of the cathode.

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The electrode assembly of claim 10, wherein:

the anode current collector extends through the end segment of the elongated strip of alkali metal corresponding to an end segment of the anode assembly that when wound into the coil disposes at least a portion of the anode current collector in the outermost layer of the coil and through at least one inner anode assembly layer of the coil not constituting the innermost layer.

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The electrode assembly of claim 28, wherein:

the anode current collector extends through the end segment of the elongated strip of alkali metal corresponding to an end segment of the anode assembly that when wound into the coil disposes at least a portion of the anode current collector in the outermost layer of the coil and through at least one inner anode assembly layer of the coil not constituting the innermost layer.

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The electrode assembly of claim 37, wherein:

the anode current collector extends through the end segment of the elongated strip of alkali metal corresponding to an end segment of the anode assembly that when wound into the coil disposes at least a portion of the anode current collector in the outermost layer of the coil and through at least one inner anode assembly layer of the coil not constituting the innermost layer.

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The electrode assembly of claim 46, wherein:

the anode current collector extends through the end segment of the elongated strip of alkali metal corresponding to an end segment of the anode assembly that when wound into the coil disposes at least a portion of the anode current collector in the outermost layer of the coil and through at least one inner anode assembly layer of the coil not constituting the innermost layer.